



LEROY D. BACA, SHERIFF

**County of Los Angeles**  
**Sheriff's Department Headquarters**  
**4700 Ramona Boulevard**  
**Monterey Park, California 91754-2169**



September 21, 2004

The Honorable Board of Supervisors  
County of Los Angeles  
383 Kenneth Hahn Hall of Administration  
500 West Temple Street  
Los Angeles, California 90012

Dear Supervisors:

**INFORMATION TECHNOLOGY SUPPORT SERVICES MASTER AGREEMENT  
(ITSSMA) WORK ORDER FOR THE LOS ANGELES REGIONAL CRIME  
INFORMATION SYSTEM (LARCIS) DATA EXCHANGE INTERFACE**

This letter is to notify you of our intent to request the Internal Services Department (ISD) to put an Information Technology Support System Master Agreement (ITSSMA) Work Order out for bid for consulting services to architect, develop and implement a data exchange interface with a maximum Work Order amount of \$250,000. This Work Order is necessary to meet our existing automated system goals as outlined in the Los Angeles Regional Crime Information System (LARCIS) Project Control Document. Your Board has been previously advised of ITSSMA work orders in support of the LARCIS Project, which in total exceeds the \$300,000, prior Board notice requirement, set forth in ISD's ITSSMA guidelines.

**BACKGROUND**

LARCIS is a mission critical application used to track more than 250,000 incident reports filed by the Sheriff's Department each year. It also serves as a repository for the large quantity of data collected from those reports. In addition, LARCIS provides case management, criminal investigation and analysis, and statistical reporting to local, state and federal agencies. LARCIS is currently running on Oracle Developer Suite 6i/10g Forms and Reports, and is in the process of moving some functions to a Java 2 Enterprise Edition (J2EE) Oracle 9ias/OAS 10g platform.

The interface data model will be based on the Global Justice XML Data Model (GJXMDM) which is an object-oriented data model, database, and XML schema

*A Tradition of Service*

specification that represents the semantic and structure of common data elements and types required to exchange information consistent within the justice, law enforcement and public safety communities.

### **SCOPE OF WORK**

This project will require the services of an enterprise architect experienced in designing and developing Web-based Enterprise Application Integration (EAI) solutions, specializing in law enforcement applications. The project will include the following tasks:

- Requirements Analysis - a matrix report, which identifies the services, the associated data elements and the rules for publishing LARCIS data and subscribing to these services for data exchange.
- Architecture and Design - a design package based on the requirements analysis using various UML, XML and database design tools and will be performed in collaboration with the Data Systems Bureau and LARCIS staff.
- Interface Construction - based on the design documentation, with the approval of the LARCIS Project Manager, the consultant will construct the interface modules necessary to send or receive data to the federal system, Law Enforcement N-DEx.
- Transition, Training, and Implementation - the consultant will assist LARCIS staff with the transition and implementation of the interface modules. The consultant will also provide administrative training for knowledge transfer to the LARCIS staff.

### **JUSTIFICATION**

This Work Order will allow us to continue with the Department's planned system modifications and refinements, which benefit all LARCIS users, regardless of their agency affiliation. This interface project will facilitate the transfer of crime information data from other law enforcement agencies in the county, as well as expedite data requests by state and federal agencies.

The Sheriff's Department, however, does not have employees with the Web-based EAI skill set needed to complete the interface defined under this Work Order. During the past three years, the Department has attempted to recruit candidates qualified and capable of performing the services required by this Work Order. The Department has been unsuccessful in its efforts and is requesting the use of the County's ITSSMA process to acquire the consulting services and the Web-based EAI skill set essential to the completion of this Work Order. Once complete, the proposed contractor, with its knowledge transfer for ongoing maintenance, will no longer be required and the Work

Order will be terminated. The Department will be responsible for the ongoing maintenance of the interface created under this Work Order.

**FISCAL IMPACT**

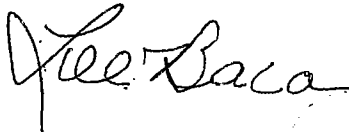
This Work Order will be for 12 months at a cost of \$250,000. All of the funding has been covered by California Law Enforcement Equipment Program (CLEEP) grant funds. LARCIS and its sub-projects are included within the Sheriff's Department's Fiscal Year 2004-2005 Business Automation Plan and within the Sheriff's Department's Fiscal Year 2004-2005 Information Technology Budget.

**CLOSING**

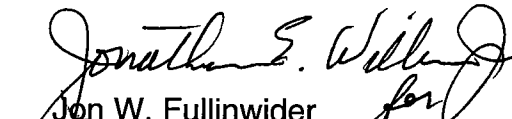
According to the established processing guidelines, if we do not hear back from your Board within the two-week review period, we will notify ISD to proceed with the Work Order Amendment Request. Should there be questions regarding this matter, please contact Sergeant Byron Burnham, LARCIS Administration, at (562) 466-5248.

Sincerely,

Reviewed by:



LEROY D. BACA  
SHERIFF

  
Jon W. Fullinwider  
Chief Information Officer

9/30/2004

## **SOW (Statement of Work)**

### **Development of LARCIS Interfaces**

#### **A. Overview**

This Statement of Work is for technical consulting services to assist the Sheriff=s Data Systems Bureau (DSB) in architecting, developing and implementing interfaces for the Los Angeles Regional Crime Information System (LARCIS). These interfaces will serve as the foundation for integrating LARCIS with external local, state and federal law enforcement systems for electronic data exchange. The design must allow for bi-directional transfer of data to any agency. An initial interface with the federal system, Law Enforcement N-DEx, will be designed, tested, and implemented as part of this work order.

LARCIS is a mission critical application used to track more than 250,000 incident reports filed by the Sheriff Department each year. It also services as a repository for the large quantity of data collected from those reports. In addition, LARCIS provides case management, criminal investigation and analysis, and statistical reporting to local, state and federal agencies. LARCIS is currently running on Oracle Developer Suite 6i/10g Forms and Reports and is in the process of moving some functions to a Java 2 Enterprise Edition (J2EE) Oracle 9ias/OAS 10g platform.

The interface data model will be based on the Global Justice XML Data Model (GJXDM) which is an object-oriented data model, database, and XML schema specification that represent the semantics and structure of common data elements and types required to exchange information consistently within the justice, law enforcement and public safety communities.

An evaluation is underway to determine if the middleware used for this work order will be the middleware in the current LARCIS application, Vitria=s BusinessWare, or possibly switch to other electronic messaging systems that runs on an enterprise integration engine.

This task requires an enterprise architect experienced in designing and developing Web-based Enterprise Application Integration (EAI) solutions, specializing in law enforcement applications. This consulting effort will be delivered on a time and material basis. The qualified consultant meeting all requirements and offering the lowest hourly rate will receive the contract award. The consultant will report to the LARCIS Project Manager. Work shall commence immediately after selection of the winning bid and the issuance of the Work Order. The project is estimated to take 12 months to complete.

## **B. Tasks and Deliverables**

### **Task 1. Requirements Analysis**

The consultant shall prepare and submit, in conjunction with the approval of the LARCIS Project Director, a matrix report, which identifies the services, the associated data elements and the rules for publishing LARCIS data and subscribing to these services for data exchange.

This task will be accomplished using the standard requirements documentation as outlined in Deliverable 1. Data schema, application source code and documentation for LARCIS will be made available to the consultant for performing this task. The task will be performed in collaboration with appropriate DSB staff and under the authorization of the LARCIS Project Manager.

### **Deliverable 1. Requirements Report**

Interim deliverables will include documentation of the "work in progress" on a weekly basis. The final matrix report must, at a minimum, identify the following for LARCIS interface requirements:

- 1.1 Name of the LARCIS services and the modules that provide the services.
- 1.2 Name of the LARCIS data elements and tables that will store the data elements needed for the interface.
- 1.3 Applicable business rules, privacy, confidentiality, security, laws, regulations and restrictions applicable to publish and/or update each data element.
- 1.4 Correspondent business rules, privacy, confidentiality, security, laws, regulations and restrictions applicable to subscribe to and/or access each data element.
- 1.5 Frequency in which the data is updated and the requirements for updating the information.
- 1.6 Requirements for LARCIS to accept requested information from external systems.
- 1.7 Requirements for LARCIS to accept updated information from external systems.

### **Task 2. Architecture and Design**

Based on the Requirements Analysis, the consultant shall design an approach that meets the LARCIS interface requirements identified in Task 1. The consultant shall prepare and submit, in conjunction with the approval of the LARCIS Project Director, a design package. This task will be accomplished

using various UML, XML and database design tools and will be performed in collaboration with the DBA, the Data Center, and the DSB staff, under the authority of the LARCIS Project Manager.

## **Deliverable 2. Interface Design**

Interim deliverables will include documentation of the work in progress of the design on a weekly basis. The consultant shall prepare and deliver verbal and written reports based on technical reviews of the design artifact under the direction of LARCIS Project Manager. The final design package must include the following:

- 2.1 Component Diagrams that fully describe, in detail, specific solutions for solving various integration problems including the design of an intuitive user interface that can be integrated by all participating agencies.
- 2.2 Recommendations regarding any hardware, software or software tools that may be necessary to complete the project development.
- 2.3 Diagrams of the architecture requirements with detailed hardware specifications and descriptions of all software that will be allocated to each server(s).
- 2.4 Design data mapping between LARCIS data model and the Justice XML data model used by the Law Enforcement N-DEx system.
- 2.5 Diagrams of the data flow and access requirements for the message handling including exchange mechanisms and transformation.
- 2.6 Specifications for the technical solution for the middleware to support the bi-directional electronic data exchange.
- 2.7 An initial project risk assessment and a plan for mitigating risks. The risk assessment document must identify and rank the likely risks in accordance to the severity of potential damage to the project goals and determine means for their avoidance or mitigation, if any.
- 2.8 Quality Assurance Plan that fully describes, in detail, how the consultant intends to prepare test scenarios and test the interface and make sure it meets all the requirements stated in the Requirement Report.
- 2.9 Project Plan that fully describes, in detail, how the consultant intends to complete the interface from development to implementation. The plan will include, at a minimum; a Gantt Chart showing the critical path, start and end dates, responsible party for completing each task, including the identification of simultaneous and sequential deliverables and tasks, and project milestones, including dates for delivery of each task.

### **Task 3. Interface Construction**

Based upon the design documentation and with the approval of the LARCIS Project Manager, the consultant shall construct the interface modules. Modules shall be coded and tested based upon the requirements and design specifications developed as part of task 1 and 2, described above.

This task will be accomplished with various integration tools. The task will be performed in collaboration with DSB staff and under the authorization of the LARCIS Project Manager.

### **Deliverable 3. Interface Construction Package**

The consultant shall prepare and deliver verbal and written reports on a weekly basis. This will include test cases that can be used for technical code reviews and testing by the DSB support staff to include the DBA, and the Data Center group, under the direction of the LARCIS Project Manager. The deliverables shall include the following:

- 3.1 Final working version of the product.
- 3.2 Installation of the final working version of the product on the designated server.
- 3.3 Execution of the testing procedures and correction of any reported deficiencies based upon testing of the modules.
- 3.4 Upon completion of successful testing, delivery of all final documents and source code.

### **Task 4. Transition, Training, and Implementation**

Based upon the interface construction and testing task (task 3), the consultant shall assist LARCIS staff with the transition and implementation of the interface modules. Additionally, the consultant shall provide administrative training for knowledge transfer to the LARCIS staff.

The task will be performed in collaboration with LARCIS staff and under the authorization of the LARCIS Project Manager.

### **Deliverable 4. Implementation and Training Support**

An implementation and maintenance package will be delivered as well as training material and a training schedule. The consultant shall prepare and deliver the package under the direction of LARCIS Project Manager.

### **C. Minimum Qualifications**

The consultant must meet and provide a verifiable reference name and telephone number on the attached Minimum Qualifications Form for all the following requirements:

1. At least one (1) year of experience working with local, State, and/or Federal law enforcement agencies developing electronic data systems or electronic data exchanges that have a similar desired functionality, within the last three years.
2. Three (3) years experience within the last 5 years, working with integration related technologies (MOM, JMS, SOAP, XML, XSD, XSLT, WSDL and UDDI), of which, at least six months must be using the Global Justice XML Data Model.
3. Four (4) years experience in architecting, designing and modeling EAI and J2EE enterprise solutions on a UNIX platform.
4. Four (4) years experience within the last 6 years, working with UML object modeling and design tool.
5. Five (5) years experience within the last 6 years working with PL/SQL Oracle relational database, and the last 2 years must be using Oracle 8.1.7 or above.
6. Two (2) years experience in developing J2EE enterprise solutions with Oracle 9iAS 9.0.3 or above on a UNIX platform.
7. One (1) year of experience in using Oracle 6i/10g Forms and Reports IDE for code viewing and testing.
8. One (1) year of experience in using Oracle=s Developer Suite 10g.
9. One (1) year of experience in using Oracle=s Application Server (OAS) 10g.
10. A trained professional with the following credentials and training:
  - i. Certified Enterprise Architect for J2EE technology
  - ii. Certified Solution Developer for XML and related technologies
  - iii. Global Justice XML Data Model (Global JXDM) version 3.0 training.



## CONTRACTOR STAFF MINIMUM QUALIFICATIONS FORM

CONTRACTOR

CONSULTANT NAME

1. At least one (1) year of experience working with local, State, and/or Federal law enforcement agencies developing electronic data systems or electronic data exchanges that have a similar desired functionality, within the last three years.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

2. Three (3) years experience within the last 5 years, working with integration related technologies (MOM, JMS, SOAP, XML, XSD, XSLT, WSDL and UDDI), of which, at least six months must be using the Global Justice XML Data Model.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

## CONTRACTOR STAFF MINIMUM QUALIFICATIONS FORM

3. Four (4) years experience in architecting, designing and modeling EAI and J2EE enterprise solutions on a UNIX platform.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

4. Four (4) years experience within the last 6 years, working with UML object modeling and design tool.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

## CONTRACTOR STAFF MINIMUM QUALIFICATIONS FORM

5. Five (5) years experience within the last 6 years working with PL/SQL Oracle relational database, and the last 2 years must be using Oracle 8.1.7 or above.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

6. Two (2) years experience in developing J2EE enterprise solutions with Oracle 9iAS 9.0.3 or above on a UNIX platform.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

## CONTRACTOR STAFF MINIMUM QUALIFICATIONS FORM

7. One (1) year of experience in using Oracle 6i/10g Forms and Reports IDE for code viewing and testing.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

8. Experience in using Oracle=s Developer Suite 10g.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

## CONTRACTOR STAFF MINIMUM QUALIFICATIONS FORM

9. Experience in using Oracle=s Application Server (OAS) 10g.

<b>Dates</b>	<b>Time</b> (in months)	<b>References</b> Name, Address & Phone Number	<b>Job Description</b>

10. A trained professional with the following credentials and training:

- i. Certified Enterprise Architect for J2EE technology
- ii. Certified Solution Developer for XML and related technologies
- iii. Global Justice XML Data Model (Global JXDM) version 3.0 training.

<b>Certificate Date</b>		<b>Certificate/Training Course Name</b>	<b>Certifying/Training Agency</b> Name, Address & Phone Number